# SYNTHETIC ORGANIC CONTAMINANTS (SOC) COMPLIANCE SAMPLING COLLECTION GUIDE

Kansas Public Water Supply Systems using the Kansas Health and Environmental Laboratories



Prepared by
Kansas Department of Health and Environment
Bureau of Water
Public Water Supply Section

# SYNTHETIC ORGANIC CONTAMINANT (S0C) SAMPLING a.k.a. PESTICIDE AND ATRAZINE SAMPLING

Synthetic Organic Contaminants (SOC) monitoring is part of the Phase II/V Rules. SOC monitoring requirements are stated in the Code of Federal Regulations 40 CFR 141.24, and can be found online at the Kansas Department of Health & Environment, Public Water Supply Section website <a href="http://www.kdheks.gov/pws/index.html">http://www.kdheks.gov/pws/index.html</a>.

SOC samples collected for annual or triennial monitoring schedules must be collected May 1<sup>st</sup> through June 30<sup>th</sup>.

The purpose of this document is to provide a quick guide for collecting SOC samples. A Phase II/V Rules Survival Guide is available online at the KDHE, Public Water Supply Section website <a href="http://www.kdheks.gov/pws/index.html">http://www.kdheks.gov/pws/index.html</a>, and is a more extensive guide on all facets of the Phase II/V Rules.

The Kansas Health & Environmental Laboratories (KHEL) is part of the Division of Environment under the Kansas Department of Health & Environment (KDHE).

The KHEL fee is \$150 for analyzing SOC/pesticide compliance samples. The KHEL fee is \$100 for analyzing atrazine compliance samples.

Table 1-SOC lists the compounds for which results can be found on the pesticide sample result report.

Analytes Included in an SOC/Pesticide Sample Result Report				
Alachlor				
Atrazine				
Butachlor				
gamma-BHC (Lindane)				
Chlordane				
Endrin				
Heptachlor				
Heptachlor Epoxide				
Hexachlorobenzene				
Methoxychlor				
Polychlorinated Biphenyls (PCB)				
Simazine				
Toxaphene				

Table 1-SOC. Compounds in an SOC/Pesticide Sample Result Report

If any of the pesticides have results that exceed certain trigger levels, more frequent monitoring will be required for that particular contaminant. Atrazine is the most common pesticide in Kansas that requires more frequent monitoring.

Table 2-SOC indicates the specific contaminants which one can expect to see in an atrazine sample result report.

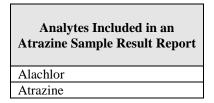


Table 2-SOC. Compounds in an Atrazine Sample Result Report

## What is in an SOC/Pesticide or Atrazine Sampling Kit from KHEL?

- Three 1 liter amber glass bottles
- Ice packs
- Cooler shipping box
- Green return shipping label
- Sample collection procedure sheet
- Sample submission form

Since an SOC/pesticide compliance sampling kit and sample collection procedures are the same as for an atrazine compliance sampling kit, they will both be referred to as pesticide samples.

Figure 3-SOC is a picture of what is contained in a pesticide sampling kit from KHEL. A barcode label on the sample collection bottle will have the system's KHEL account number and the bottle identification number. The green return shipping label is to be placed on the outside of the package when ready to ship the sample back to KHEL. The white sheet is the sample submission form that must be completed for each pesticide compliance sample.

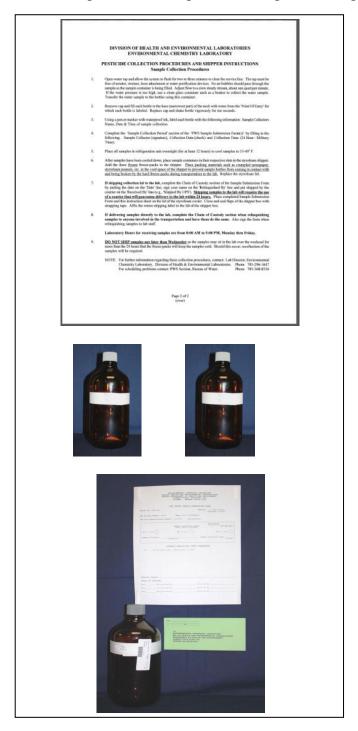


Figure 3-SOC. What Is Included In a Pesticide Sampling Kit

Page **4** of **9** SOC and Atrazine Sampling

ENVIRONMENTAL CHEMISTRY LABORATORY KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT FORBES FIELD, BUILDING 740 TOPEKA, KANSAS 66620-0001  FWS WATER SAMPLE SUBMISSION FORM				
PWS Account	Number: F9999	Name: CITY OF ANYWHE	RE	
POE Site Ide	entification Number	r: 00000001 POE Locat:	ion:	
		SAMPLE COLLECTION PERIC		Spl Receipt Temperature LAB USE ONL
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	ORGA	ANIC ANALYTICAL TESTS		
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	ORGA	ANIC ANALYTICAL TESTS		
	ORGA	ANIC ANALYTICAL TESTS		
	ORGA	ANIC ANALYTICAL TESTS		
PF	ORGA	ANIC ANALYTICAL TESTS - EPA Methods 507/508		
PF Sampling Com	ORGA 257022 Pesticides	ANIC ANALYTICAL TESTS		
PF Sampling Com	ORGA 257022 Pesticides ments:	ANIC ANALYTICAL TESTS - EPA Methods 507/508	REQUEST	TED
PF Sampling Com Chain of C	ORGA 257022 Pesticides  ments:  Lustody:  Relinquished By	ANIC ANALYTICAL TESTS - EPA Methods 507/508	REQUEST	PED

Figure 4-SOC. Example of a Pesticide Sample Submission Form

#### THE PESTICIDE SAMPLE SUBMISSION FORM IN DETAIL

Figure 5-SOC indicates the header of the form which tells where the kit came from, and that the form is for use in submitting a public water supply (PWS) sample. The address in the header is the address of KHEL and will match the address on the green return shipping label that came with the sample kit.

ENVIRONMENTAL CHEMISTRY LABORATORY
KANSAS HEALTH AND ENVIRONMENTAL LABORATORIES
KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
FORBES FIELD, BUILDING 740
TOPEKA, KANSAS 66620-0001

PWS WATER SAMPLE SUBMISSION FORM

Figure 5-SOC. Header of the Sample Submission Form

Figure 6-SOC indicates the system's address information printed on the form.

Report To: JANE DOE Address: 123 EASY STREET
ANYWHERE KS 66666

Figure 6-SOC. System Address on the Sample Submission Form

Figure 7-SOC has been highlighted to point out specific areas on the form.

The part highlighted in green will indicate the system's KHEL account number.

The part highlighted in purple is the point-of-entry (POE) identification number where the sample must be collected. The POE site ID number should match a KDHE identification tag number that is physically at the site where the sample should be collected.

The part highlighted in yellow has often caused confusion for samplers. It is the Local Name for the collection site. In our data base, systems have the option of giving the POE site a "Local Name," and printed on the form in this location (if anything) is whatever the system requested as the Local Name.

PWS Account Number: F9999 Name: CITY OF ANYWHERE

POE Site Identification Number: 00000001 POE Location:

Figure 7-SOC. System's KHEL Account Number and Collection Site ID

Figure 8-SOC has been highlighted to point out specific areas on the form. This section must be filled out for each pesticide compliance sample. Fill out the form completely and neatly! If there is a problem with the sample, KHEL personnel will call the sample collector and try to resolve it. However, if they are unable to make contact the sample may be rejected and the system will have to re-collect the sample.

Figure 8-SOC indicates that the form presents the choice of three different dates for sample collection. Check the correct box for the date the sample is collected. If unable to collect on one of the three dates printed on the form, call the KDHE Public Water Supply Section at 785-368-8336 to see if it's possible for the scheduled collection dates to be changed. The gray highlight is where the sample collector should write their name.

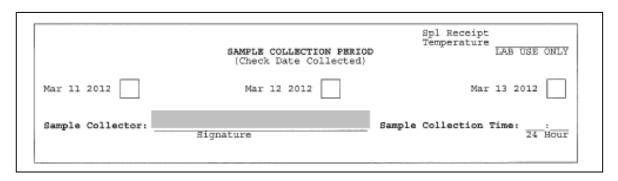


Figure 8-SOC. Three Different Choices for Sample Collection Dates on the Sample Submission Form

Figure 9-SOC has been highlighted to point out specific areas on the form. This part of the form lists the bottle ID number and the EPA approved method that will be used to analyze the sample.

The part highlighted in blue is the identification number of the bottle. The bottle ID number on the container should match the bottle ID number on the sample submission form. If they don't match, call KHEL at 785-296-1620 and notify them of the situation.

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ORGANIC ANALYTICAL TESTS REQUESTED

PF 257022 Pesticides - EPA Methods 507/508
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Figure 9-SOC. Analysis Method and Bottle ID on the Sample Submission Form

Figure 10-SOC indicates that the form has space for sample collection notes. If the sample collector has any comments about the sample that they feel is important for the analysts at KHEL to know, they should write comments on the line labeled, "Sampling Comments." The "Chain of Custody" lines only need to be used if the sample is passing from the sample collector to someone other than the courier service that will be delivering the sample to KHEL.

Sampling Comments:				
Date	Relinquished By	Received By		
Date	Relinquished By	Received By		
Date	Relinquished By	Received By		

Figure 10-SOC. Chain of Custody Section on the Sample Submission Form

#### COLLECTING AND SHIPPING THE PESTICIDE SAMPLE

Pesticide samples must be chilled before shipping. Before collecting a pesticide sample, put the ice packs in the freezer. After collecting the pesticide sample, immediately place the bottles in the refrigerator overnight. Make sure the sample does not freeze or the bottle will break.

The sampling kit will instruct that the samples must be collected on one of three dates that fall on a Sunday, Monday or Tuesday. The collected samples must reach KHEL no later than Wednesday of the same week with only 24 hours in transit. Many systems pay for additional courier services (next day or priority shipping) to ensure their sample will be delivered on time. If unable to collect on one of the dates printed on the sample submission form, call KDHE, Bureau of Water, Public Water Supply Section at 785-368-8336 to see if it's possible for the scheduled collection dates to be changed.

### **Collecting the pesticide sample**

Read through the sample collection instructions before collecting. For questions or concerns about the sample collection process, call KHEL at 785-296-1620 for assistance.

Pesticide monitoring samples must be collected from finished water. Listed on the sample submission form is the POE site ID number where the sample needs to be collected. At the sample collection site there should be a KDHE ID tag with a number that matches the POE site ID number on the form.

#### Shipping the pesticide sample

Place the three bottles containing the sample and the freezer packs into the cooler in the shipping box. Place the completed sample submission form on top of the cooler lid. Tape the box shut.

Secure the green return shipping label to the package. The sample must arrive at KHEL by Wednesday with only 24 hours in transit. Many systems pay for additional courier services (next day or priority shipping) to ensure their sample will be delivered on time.

If the sample container leaks it could arrive at KHEL empty or with not enough sample left to analyze. Many couriers will consider a wet package undeliverable and will discard it. Either of these scenarios would require the system to re-collect the sample.

#### SUMMARY OF PESTICIDE SAMPLING

- Upon receipt of the sampling kit, open and review the appointed sample collection date.
- Check that bottle ID numbers, KHEL account number, and collection site ID numbers are correct.
- Place the ice packs in the freezer.
- Follow the sample collection instructions that are on the sample submission form.
- Fill out the sample submission form completely and neatly.
- Immediately after collecting the sample, place it in the refrigerator to chill overnight.
- Include the ice packs, the sample and the completed sample submission form in the package. Paying for additional courier services (overnight or priority shipping) may be necessary to ensure the sample is delivered to KHEL on time.
- Calling KDHE with questions or concerns you may have is highly encouraged.

For questions about your pesticide sampling kit or the sample collection process, call KHEL at 785-296-1620.

For questions about your pesticide compliance or compliance monitoring schedule, call KDHE's Bureau of Water, Public Water Supply Section at 785-368-8336.